

CLAIMS

1. A radio communication system comprising a primary station and a plurality of secondary stations and having a random access channel for the transmission of data from a secondary station to the primary station, wherein the primary station has means for transmitting a random access channel status message indicating the availability of random access channel resources and the secondary station has means for receiving the status message and means for using the contents of the message to determine what random access channel resources to request.
2. A primary station for use in a radio communication system having a random access channel for the transmission of data from a secondary station to the primary station, wherein means are provided for transmitting a random access channel status message indicating the availability of random access channel resources.
3. A primary station as claimed in claim 2, characterised in that means are provided for transmitting the random access channel status message during unused bits in a paging indicator channel or acquisition indicator channel, using the same channelisation code as that channel.
4. A primary station as claimed in claim 3, characterised in that means are provided for generating the random access channel status message as a 3 bit word.
5. A primary station as claimed in claim 4, characterised in that means are provided for encoding the random access channel status message using 4 times repetition coding.
6. A primary station as claimed in ~~any one of claims 2 to 5~~, characterised in that means are provided for dynamically allocating bit rates to
- class 375

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random access channels in response to requests for resources from secondary stations.

7. A secondary station for use in a radio communication system having a random access channel for the transmission of data to a primary station, wherein means are provided for receiving a random access channel status message transmitted by the primary station and for using the contents of the message to determine what random access channel resources to request.

8. A method of operating a radio communication system having a random access channel for the transmission of data from a secondary station to a primary station, characterised by the primary station transmitting a random access channel status message indicating the availability of random access channel resources and by the secondary station receiving the status message and using the contents of the message to determine what random access channel resources to request.

9. A method as claimed in claim 8, characterised by the random access channel status message being broadcast regularly.

10. A method as claimed in claim ~~8 or 9~~, characterised by the random access channel status message indicating which random access channels are available.

11. A method as claimed in claim ~~8 or 9~~, characterised by the random access channel status message indicating which data rates are available on the random access channel.

12. A method as claimed in claim ~~8 or 9~~, characterised by the random packet channel status message indicating the highest data rate

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available on the random access channel.

d 13. A method as claimed in ~~any one of claims 4 to 12~~, characterised
by transmitting the random access channel status message during unused bits
5 in a paging indicator channel, using the same channelisation code as that
channel.

d 14. A method as claimed in ~~any one of claims 8 to 13~~, characterised
by the primary station dynamically allocating bit rates to random access
10 channels in response to requests for resources from secondary stations.

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